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AVICULTURAL MAGAZINE

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Magpie-Robin.

AVICULTURAL MAGAZINE

THE JOURNAL OF THE AVICULTURAL SOCIETY
AND THE AVICULTURAL SOCIETY OF AMERICA

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THE DHYAL OR INDIAN MAGPIE-ROBIN

By S. C. Law (Calcutta, India)

Among many charming Indian birds the Dhyal, *Copsychus saularis* (Linn.), is one which has all the qualities of a first-rate aviary bird. The beauty of its form and plumage, its bold and confiding habits, its fondness for human habitations, its sweet and varied notes—loud and piercing, or sometimes mellowed, its pose and movement, either at rest or in motion—all appeal to bird-lovers.

The Dhyal occurs in India, China, and some other parts of Asia. It is extremely common and widely distributed throughout its native habitat—mainly the plains and hill forests up to a certain altitude—and its popularity with the local people can easily be guessed. But as the old adage says, familiarity breeds contempt, and the bird is not particularly appreciated by our countryfolk. Occasionally Dhyals, mostly males, are kept in captivity as pets, and sometimes pairs are found in the local zoos. The country's export trade in captive Dhyals receives periodical impetus by outside demand, and on such occasions many caged specimens are no doubt found in the bird market.

The Dhyal is attractive in colour, striking yet graceful, and has a well-proportioned form—intermediate between the English Robin and Blackbird. Its black and white plumage, closely resembling that of the Magpie, is responsible for its English name of Indian Magpie-Robin. The upper part of its body is black with a blue metallic gloss, the white wing-coverts form a broad band and the under parts are white from the chest downwards. The two centre pairs of tail-feathers are black, the outer ones white, sometimes with a little black. The beak is black, eyes hazel-brown, and legs dark plumbeous. The female is similarly marked and is just as pretty, though her plumage is iron-grey instead of black. The young birds resemble her and have buff mottling on the breast and wings. This mottled character of the juvenile plumage indicates the position of the species among robins and thrushes. It has many traits in common with the English Robin.

Fondly attached, like the Robin, to the proximity of man, it adjusts itself remarkably to the changing circumstances and situations resulting from human civilization. It is not a shy bird ; the male is sometimes aggressively bold, but the female is retiring in her habits. The pairs are not fondly attached to each other, and the two sexes invariably keep at a distance from each other. This habit is not unlike that of its pugnacious congener the Shama, *Kittacincla malabarica* (Scop.), which is a much more favourite bird for the cage. Another characteristic common to both is the animated movement of their tail-feathers. Watch the Dhyal feeding in its natural habitat or in an aviary and you will not fail to notice its half-open, or almost drooping, wing while it hops about in search of food, and at each hop stops with a jerk of its tail spread out and turned upwards. Simultaneously it raises and depresses its body and flirts its tail. This tail-play has been described as an affliction with a kind of St. Vitus's dance in the mechanism of the tail. It consists of its expansion like a fan so as to show the white outer feathers, then closing the tail and jerking it up over its back.

The Dhyal readily takes to captive life. As in freedom, so in captivity, its pugnacious habit is a warning that it is best kept either singly or in separate pairs. Being unsociable in the wild and mainly insectivorous, it is always wise to avoid keeping it in the company of other birds of similar nature and habits, but it is easily managed in a collection of seed-eaters and fruit-eaters. It is inordinately fond of a bath, which must be provided, as its habit of bathing very early in the morning as well as at dusk is so pronounced in its natural state. It breeds in confinement, and quite freely in an aviary. A little inducement such as throwing cockroaches or disabled insects in its way makes it very tame in captivity. It is easily induced to breed by supplying an earthen pot, or a little box, a small bamboo pole with a convenient hole, or by devising a burrow or hole in the cage wall, which the pair will not fail to accept for nest-making in the breeding season. In the wild state, however, in the rural area of Calcutta I have also found the Dhyal's nest in bushes and hedges resting on a platform of twigs. Usually it lays five eggs, greenish with rusty spots. But my experience with two or three aviary pairs some years back showed three as the maximum complement of eggs laid in their nests. However, perhaps one or two eggs laid outside the nest may have escaped notice. As nest materials I have found coconut fibres preferred to grass and roots. The eggs took fourteen days to hatch out. The nesting time is usually from mid-April till July.

From an avicultural point of view the problem of breeding the Dhyal is not so easily solved, especially with an unmated pair. Introducing the cock to the hen, or vice versa, in the same compartment has initial risks. At first what appears to be courting display

with loud outbursts of song tends more often than not to degenerate into aggressiveness, furious chasing of one by the other, free fights, etc., so that one bird is in danger of losing its life from damage and extreme exhaustion. It is a case where only an aviculturist's ready wit, forethought, and quick action can avert a serious mishap. As a first step it is always prudent to keep the cock and hen separate in adjacent compartments, in full view of each other, so as to allow proper appraisal of their mutual behaviour and responsiveness in the mating season. As soon as there are definite indications of their wishing to mate they should be put together in the same aviary, when the owner will find all his care and attention well repaid. Both cock and hen not only take part in the construction of the nest but also in the incubation of the eggs. As usual with insectivorous birds, an adequate and constant supply of insect diet is indispensable at this time to enable the pair to rear their young. One precaution, in my experience, was found necessary ; namely, to segregate the cock bird from its newly hatched young in a nearby compartment to avoid over-attention.

As I have already mentioned, the Dhyal is often caged for its song, also on account of its pugnacious qualities which are exploited by indigenous people to capture wild ones.

* * *

THE TRADE IN AND TRANSPORT OF BIRDS

The following comments have been received :—

Miss Barclay-Smith's account of the deplorable way in which a consignment of African birds was treated by the exporters is a familiar story. Years ago, there was the trade in West African birds between Dakar and Marseilles, the grossly overcrowded cages travelling on the decks of ships in all weathers, with the consequent tremendous loss of life and great suffering of the unfortunate inmates.

In about 1930, when the ban on the importation, here and elsewhere, of psittacine birds was imposed because of psittacosis, the conditions under which the more common species of parrot were transported were responsible. Had it not been for this, psittacosis might never have been known among parrots.

This terrible cruelty and slaughter of bird-life has been going on for a very long time. It occurs mainly among the common and easily caught birds for which, presumably, the exporters pay very little to the native catchers. Though the exporters are chiefly to blame, the importers must also bear some responsibility, for they can surely stipulate that the birds they are buying must be well cared for and properly packed.

Overcrowding at least should not be difficult to stop and this is perhaps the greatest single cause of suffering and death.

In 1928 the Zoological Society set up a committee (on which our President, Mr. David Seth-Smith served) and a booklet entitled " Hints on the Transport of Animals " was published. This, of course, dealt with mammals, reptiles, amphibians and the fishes as well as birds, and it was revised a few years ago when the transport of the smaller animals by air became the general practice. This publication together with the recommendations of the International Committee for Bird Preservation will prove a valuable guide in any action that should now be taken, for aviculturists, through their various societies, have a clear duty to perform here.

J. J. YEALLAND.

LONDON.

Although my experience of the transport of birds is very limited, I can boast that of the few that I have consigned from abroad (to myself), I have lost none. On the other hand a consignment of waterfowl which was sent to me by an overseas zoo was so badly packed that few survived. The greatest difficulties in the export of birds, however, lies not in the transport, but in the permit-getting and licence hunting. During a stay in Australia, some years ago, I had some sad moments and sore interviews with the officials concerned. The Australian States each have their own laws regulating wild-life protection and some of these States are extremely jealous of their State-rights and their independence of the central authorities in the federal capital of Canberra. I feel that if the federal authorities were the only ones concerned in the export of fauna there might be an easier flow of birds to aviculturists of any real competence ; instead, the various States issue or forbid the issue of exit-permits for their fauna. At the time of my visit, Tasmania, South Australia, and Western Australia had sensible policies with limited numbers of licensed trappers and exporters, and generally any properly accredited person would be permitted to take out a limited number of individuals of unendangered species trapped in the open season. I broke no teeth in Victoria, but in New South Wales and to a lesser extent in Queensland it was excessively difficult to get out even the small numbers of birds that I wanted : indeed there was a rather unpleasant attitude in N.S.W.

In Queensland, personal caprice was also evident, for in this vast and wonderful state the whole of wild-life protection was left to the part-time duties of an official whose main duties (and interest) lay in controlling honey-production and bee diseases ; his duty to the wild

fauna was a very minor one, but his interest in apiculture was evident by the inclusion in the vermin list, of animals that might be destroyed at any time of the year, of the superb little Australian Bee-eater! I suppose that bee-eaters do kill some bees. I would emphasize that all this happened years ago and things may have improved.

Of course the Australians are perfectly right in making the export of their fauna as difficult as possible when one considers the appalling conditions that some of the birds have to suffer during transit, and in the trapping and holding periods. I remember my horror, years ago, at London Airport when I went to collect some Sheld-Duck that had been flown to me from Australia. In the same plane were some dozens of boxes of finches and in the R.S.P.C.A. hostel receiving rooms, an attendant was raking out dead bodies from these boxes till a sad heap of Gouldians, Diamond Sparrows, and Bicheno's was piled 18 inches high on the floor. There must have been hundreds of corpses. It is fair to say, however, that the plane had been delayed in the heat of Bahrein. Incidently, we owe a great debt to the R.S.P.C.A. for this hostel and I fear that few of us recognize this. Of the finches that survived this ordeal of transport, and it can be an ordeal for humans even with all the comforts, not a few would get their release in crowded, noisy shops while the rest would soon succumb in some miserable, dark bird-room or equally dreary back-yard " aviary ". To those of us who have seen these wonderful little coloured finches in their native habitats, and to the Australians whose wards they are, this sunless prospect is appalling. Entrancing though the Gouldian may be, I cherish particular memories of two, ordinary dull-coloured species of Australian finches. The first was my first sight of the Long-tailed Grassfinch : just a simple picture of twenty little birds under a relentless sun and blue sky far out on the open plain, twenty birds so gently moving through the bleached gold of the Mitchell Grass, buzzing as they went, their tiny voices, that could never fill the vast emptiness around me, only making the void more desolate. The other was a typical water-hole scene where hundreds of finches came in the early morning just before sun-up, mostly Cherry Finches, aptly named Modest, to drink with the brilliant Pale-headed Rosellas and Crimson-wings. Somewhere in the trees two Galahs were calling " Cleecleeek ", a Maned Goose gave her snarling call in the distance, and near at hand two Piping Crow-Shrikes (Magpies) chortled and fluted tunefully. I still get a sharp pang of nostalgia when I hear these sounds from captive birds at home.

Roseate Cockatoos, Swainson's Lorikeets, and Maned Geese are abundant in Australia and immense numbers are destroyed each year in the quite rightful protection of man's crops. It should be remembered too, that many birds are a " crop " themselves and that in default of harvest there is great wastage. Thousands of these

birds could be spared for export without any damage to the species, and would bring great joy to people who would cherish them. After all a given area can only support a certain number of birds; the excess is removed by predators, disease, drought, starvation, poison, or the shot-gun. On the other hand it would be criminal to allow the capture for export of species like the Orange-bellied Grass Parakeet, whose numbers probably do not exceed 200 (but which I was privileged to see). The Australians should remember too, that while they were still careless of their fauna, aviculturists were maintaining some of their endangered species. For a time it seemed as though the Cape Barren Goose would soon join its related New Zealand *Cnemiornis* in extinction. During this time I am sure there were more Cereopsis Geese breeding in captivity than in Tasmania where hunters were still permitted to shoot them. Happily the species has now been given full protection since my return from Australia and is increasing again.

I hope that the export of fauna will be controlled strictly but not entirely prohibited. I believe that no one should be permitted to import the fauna of another country unless the accommodation the importer can provide is suitable. I feel that only people accredited by, and whose premises have been inspected by, say, the Nature Conservancy, should be permitted to keep the wild fauna of any country. This inspection would be costly but could be met by very heavy dues on each import. One thing is quite certain that if a pair of birds has cost him dear, the possessor will ensure that they get good treatment and the incentive to breed them will be the greater. On the other hand the suffering of a pair of waxbills at half-a-crown, is likely to be mercifully short, and their loss will leave the buyer's feelings but little moved and his pocket unwounded.

There is no denying that many field and museum ornithologists have a strongly held antipathy to bird-keepers, quite forgetting that aviculturists can supply information about behaviour, plumage changes, and reproduction much more readily and reliably than can field studies and skin examinations. We must make quite certain, however, that the conditions under which our birds are imported and maintained give these ornithologists no just cause for their dislike of us.

TOM SPENCE.

NEWBURGH, SCOTLAND.

I read with interest our Editor's article on this subject and should like to comment on it.

The trade in wild birds is condemned on the grounds of: (1) Its cruelty and (2) Its (alleged) harmful effects on the species concerned. On the first count it must be admitted that a great deal of suffering is sometimes, indeed very often, entailed, not only in the

capture and transit of the birds, but also their fate after they reach dealers, I imagine, and even after that. Dealers are usually willing to sell to any buyer and often pretend that a bird is easier to keep in health than is the case. It is just those customers who are ignorant of how to care for, shall we say (to take examples of species that I have seen offered for sale in south-east London recently) a Hill Mynah, a Pekin Robin or a Brambling, who are, quite reasonably, likely to take the dealer's statements as entirely valid.

Very often the dealer is guilty of a great deal of unintentional cruelty which a slight knowledge of bird behaviour on his part would prevent. For example a " distance animal " such as, for example, a Speckled Pigeon, unless it is very ill or in a state of intense fear, *cannot and will not* allow another of its own kind, other than its mate or young, to come very close to it. If one puts a dozen Speckled Pigeons in a " nice big cage ", then injury to all the birds through fighting, and very serious mutilation of the weakest ones is certain to result. It is not only dealers who practise this sort of cruelty through ignorance, some zoos are among the worst offenders. It is no comfort to a bird to be in a large aviary if it is being harried about it all day long by a mated pair of its own species, or half-starved because a stronger bird keeps constant watch and guard over the food trays.

There is I think a very real need to campaign for the better and wiser treatment of *all* captive birds, whether wild *or* domestic, but I think this can best be done by precept and example rather than by prosecutions, except, perhaps, in cases of flagrant *and deliberate* cruelty. It is an unfortunate fact that many people who concern themselves with the wrongs of animals, or rather with the wrongs of those animals whose sufferings do not happen to benefit themselves, are ignorant of the real needs of animals and, in some cases, are more concerned with venting their own aggressive impulses by getting other people into trouble than in alleviating animal suffering. Whilst those who keep birds cannot justify any cruelties they commit on the grounds that other people do worse, yet some of their detractors might well and profitably whittle at the beams in their own eyes before they get worked up about the motes in others ! Perhaps I can give an illustration of the sort of thing I mean, using examples that do not directly affect us as aviculturists ?

Every so often there is an outcry in the popular press against stag-hunting and in those instances where a stag has finally been killed we read harrowing accounts of the cruelty of hunting, terrifying, and finally killing such a " noble " beast. All true enough, except, of course, that the stag is no more, if no less " noble " than a rat or a cockroach. Yet let a bullock escape on its way to the slaughter-house and the same newspapers label it as a " mad bull " and implicitly invite us to revel in its terror, recapture, and slaughter. I hold no brief for

hunting (though in England such other methods of killing deer and foxes as are commonly used are far more cruel) but for those who are not strict vegetarians (foregoing milk, butter, woollen clothes, and leather goods as well as meat) to condemn it on humanitarian grounds, whilst doing nothing about the cruelties inflicted in their interests on domestic animals, is sickening hypocrisy. The only difference between the fate of the deer that is killed at the end of the hunt and that of the cow, pig, or bullock in the slaughter-house is that the latter has had *no* chance of escape at all. It has usually been subjected not only to intense fear but to a considerable amount of physical pain, and is often kept starving within sound and smell of the slaughter for a day or so before being killed. This, of course, applies to those instances where everything goes according to the official plan, if (as slaughter-house workers whom I have had " off the record " talks with have assured me is often the case) one or two sadistic slaughter-house workers should decide to " have a bit of fun " the agonies inflicted are infinitely greater and more prolonged.

Some " rabid " bird-protectionists may even try to prevent the amelioration of suffering. As I go about London I usually carry a pair of small scissors and if I see a pigeon or other bird with cotton tangled round its leg try to catch the bird and remove it. Since the cruel practice of placing tangles of black cotton over seed beds to cripple or remove the feet of birds that try to walk about in them is still legally permissible, a great many birds in London lose toes, or even in some cases both feet in a slow and painful manner. (In the country the victims are usually soon caught by some predator so the results, though cruel, are not so long-drawn). The majority of people are extremely sympathetic if I explain, as I always make a point of doing, the reasons for my actions. But the more eager bird-protectionists point out that, legally, I am not permitted to try to help an injured bird, if this entails capturing it, since I am not a qualified veterinary surgeon, and threaten to call the police. I invariably tell them they can do what they like and so shall I, and members of the crowd usually take my part and give them more emphatic and less civil advice as to what they can do. So far their threats have not been implemented, but I suppose if they were I should be fined or imprisoned for an offence against the " Nation's Heritage of Wild Life ".

On the question of the harm done to species—as distinct from the suffering caused to individuals—I think there is very little positive evidence against the bird trade. It does seem likely that unrestricted trade in some of the Lovebirds (*Agapornis*) could have a disastrous effect on them and it is possible that the bird trade was responsible for the low numbers of the Goldfinch in Britain at the end of the last century. Though the taking over of land by government and municipal

authorities and subsequent increased acreage of thistles probably contributed more to the present happy abundance of Goldfinches than the bird protection laws. Indeed, the bird trade and the practice of bird-keeping has benefited many species (though often at a sorry cost in terms of individuals) by distributing them widely throughout the world. In cases such as the Spotted Dove, the Collared Dove, and the Java Sparrow, one may perhaps question the benefits to man and other forms of life. But at least one instance of this sort of thing, the establishment of the Mandarin Duck in England, is in every way to be welcomed, in view of its precarious position in its native haunts. Now, if only the sportsmen refrain from persecuting it too much or from over-filling all our waters with artifically reared Mallard, it should be safe for a long time to come.

What good, if any, does the bird trade and bird-keeping serve to offset its debit account ? Well it supplies the aviculturist who, at least in some cases, is thereby enabled not only to get a great deal of aesthetic pleasure which, if he looks after his birds properly is quite an innocent pleasure that involves no cruelty, but also to make significant contributions to our knowledge of bird behaviour. It should be remembered also that those ornithologists who have contributed most to the study of bird behaviour are, or were, in many instances, people who first started keeping birds in early childhood and thus early acquired an insight into their ways and sympathy with them that so characterized and set its seal on their later scientific works. So the suggestion sometimes made that only scientists (already arrived at such eminence) or experienced aviculturists should be allowed to keep birds is not so reasonable as it may at first seem.

So long as the interpretations of " rich " and " poor " which she gives are honestly adhered to, none can gainsay our Editor that there should be one law for the rich (favourable) and one law for the poor (adverse) where the acquisition of birds is concerned. But we should be careful to see that it is not applied according to mere monetary wealth (by no means all rich people are knowledgeable and humane, true though it is that poverty usually corrupts even more quickly and certainly than wealth) and that every effort should be made to instruct and encourage those poor in avicultural knowledge but desirous to learn. At present our British bird protection laws are decidedly biased in favour of the rich, in the usual, not in our Editor's sense of the word. Compare the concessions made (quite justifiably) to falconers and waterfowl keepers, who are usually either wealthy and influential people or official bodies, with the lack of any comparable concessions to those who wish to keep and study birds that can be kept by a person of moderate means, such as finches, thrushes or pigeons. Or again notice how the Goosander and Merganser can be legally killed as vermin on their breeding grounds

(and are) because they take " game-fish " which the rich enjoy fishing for, whereas the Great Crested Grebe, a far more abundant and widely spread species, which takes " coarse " fish that are fished for by persons of small or moderate means is absolutely protected.

DEREK GOODWIN.

LONDON.

* * *

BREEDING OF THE PURPLE GRENADIER WAXBILL (*GRANATINA IANTHINOGASTER*) AT THE KESTON FOREIGN BIRD FARM

By EDWARD J. BOOSEY (Keston, Kent, England)

I write to record the breeding here at Keston this season of the Purple Grenadier Waxbill (*Granatina ianthinogaster*), which is, I believe, the first time the species has been bred in this country.

Having for the past thirty-one years devoted most of my energies to the breeding of parrakeets and parrots, I now find myself with an ever-increasing interest in insectivorous birds and the rarer finches and waxbills. And I am glad this should be so, because, even in these days of endless bans and restrictions, one can still obtain such birds with comparative ease, whereas the acquisition of the rarer parrakeets has nowadays become what can only be described as a tiresome obstacle race. I therefore decided to form a small collection of insectivorous birds, etc., to be housed in a new range of planted aviaries which I have had erected close to our terrace aviaries, and which are ideal for insectivorous species as they each have a large heated shelter with plenty of window space. These now house a pair each of Amethyst Starlings, Superb Spreos, Japanese Blue Flycatchers, White-capped Redstarts, etc.

In 1956 I purchased two pairs of Purple Grenadier Waxbills (*Granatina ianthinogaster*) and these seemed to settle down best in one of the rather smaller terrace aviaries of the kind we use for housing Grass Parrakeets. One of the hens died a month or two later, and we sold the odd cock to one of our customers. I originally thought our birds were *G. ianthinogaster roosevelti*, but after studying Messrs. Praed and Grant's *African Handbook of Birds*, Series 1, Vol. 2, and noting the slight differences, they mention between the two species, I have come to the conclusion that they are the typical race *G. ianthinogaster*, whose range is given as Eastern Africa: Central, Eastern, and Southern Kenya Colony from the Tana River to Tanganyika Territory, as far south as the Iringa area. The Purple Grenadier is of course closely related to the well-known Violet-eared Waxbill (*Granatina granatina*) from South Africa, but it is rather larger and of a more robust build. It is said

to be parasitized by Fischer's Whydah. The male has the head, neck, and back chestnut brown, darker on the wings, and particularly rich on the head and neck, and there is a small cobalt or violet blue patch round the eye, narrower above and wider below it. The tail is black and the rump cobalt blue. The breast and abdomen are rich purple-violet rather unevenly marked with dark chestnut, and if only this purple-violet colour was uniform over the whole breast and abdomen, I think the Purple Grenadier would certainly be the most beautiful of all the waxbills. The beak is red and the eye is ringed with red. The female is quite distinct, being a warm brown above and paler below, the breast being prettily speckled with buff and whitish spots. The tail is dusky blackish and the rump is blue. The patch round the eye is whitish, whereas in *roosevelti* it is said to be more bluish. The upper mandible is blackish and the lower one deep coral pink. When first fledged the young ones are little earthy brown birds, paler below and darker on the wings, with short dusky blackish tails and dull blue rumps. There are small blue nodules at the base of the beak, which later disappear. Our pair spent the later summer months of 1956 in an outdoor aviary of which they were the sole occupants and were transferred for the winter to a large cage in a heated birdroom. I was not actually looking after them myself, but I paid them periodical visits, and about January I noticed that the hen appeared to be somewhat bare about the head and had difficulty in flying. I therefore had them given regular doses of artificial sunlight, and myself gave them a constant supply of flowering poa annua grass and millet sprays, after which they picked up in a remarkable way—so much so that by the time that they were returned to their aviary in the spring they were both in excellent fettle.

They were put into the same aviary as before with a fairly small single-windowed shelter and a flight roughly 10 feet long by 5 ft. 6 in. wide by 7 ft. 6 in. high. They soon went to nest in the shelter, but not long afterwards seemed to lose interest and the nest was found to have been taken possession of by mice. As the Grenadiers seemed to prefer nesting in the shelter, we decided to move them into an entirely mouse-free aviary with a larger double-windowed shelter, and as a further precaution against mice, should any gain access to the aviary, Mr. Cummings decided to fix up their nest-box, shielded with heather, in the middle of a sheet of zinc which had previously been nailed to the back of the shelter. They took to this at once, constructing a cosy little spherical nest mainly of grass stems and lined with a few feathers, and it was soon evident from their curved tails that they were sitting.

Of their seed mixture of brown Indian millet, white millet, and canary, it was the latter that they always picked out, but what they really like in the seed line is to live entirely on spray millet, and with these we keep them constantly supplied. They are also very fond of such

greenfoods as flowering grass, chickweed, etc., and they were given an assorted bundle to pick over every day. They were offered bread soaked in sweetened milk, but were not particularly keen on it, and they only ate a few of the gentles and mealworms with which they were also supplied. What they really adored were live ant cocoons and one of our aviary attendants was extremely good at finding and supplying them with these.

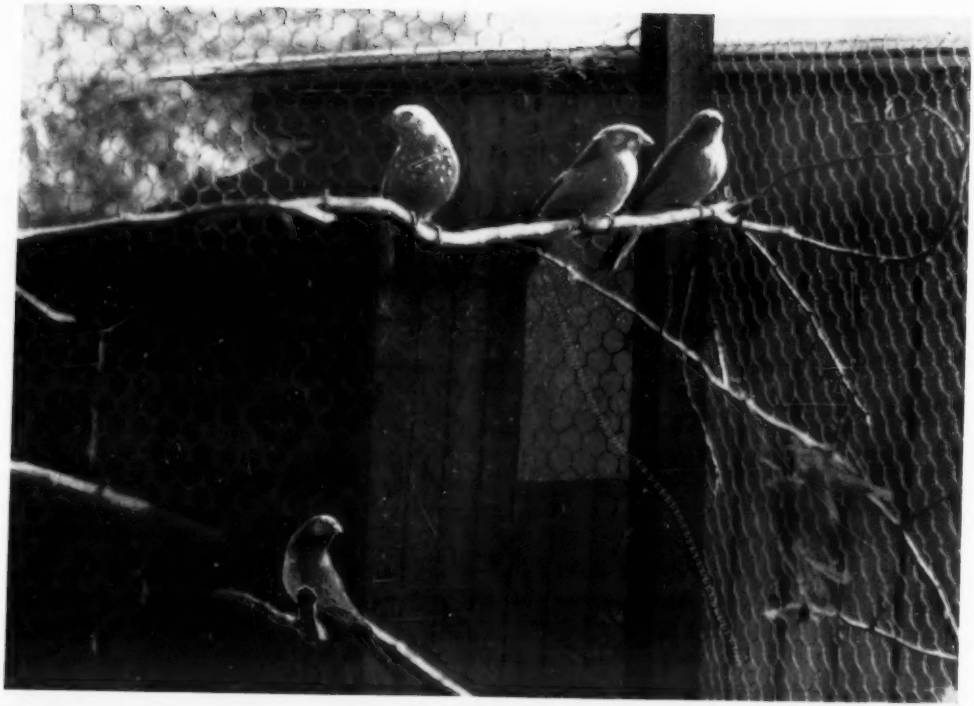
We had not looked in the nest-box at all, but from the parents' behaviour it seemed fairly obvious that they had young ones. Eventually, when they seemed rather long in fledging, I decided to look in the nest, because the aviary had become much overgrown with a tangle of weeds and nettles, and as we were having the usual series of cloudbursts at the time, I was afraid they might fall into the weeds and get drowned. A quick look in the nest showed that there were young ones, but as I was hurriedly retreating they both jumped out of it—and I have found that once that happens they will never stay in it, no matter how many times one may put them back. One of them, however, was quite ready to fledge and flew strongly, but the other slightly younger one spent a day or two hopping about on low perches that I fixed up for it close to the ground, but very soon gained its full powers of flight, and meanwhile I had had the aviary flight cleared of weeds.

The Grenadiers proved excellent parents, constantly fussing over their young ones and uttering the little trilling policeman's whistle note which is so exactly like that of a Red-headed Parrot Finch. In addition, both sexes have a short but pleasing song which is like that of the Violet-eared Waxbill, but rather weaker in volume. The parents went to nest again, but a recent inspection of the nest before taking it down disclosed only a single, apparently deserted, egg. Although the young ones are now sufficiently grown-up to have started singing, the old birds do not seem to resent their presence in the least so, having ringed the young ones, we have decided to winter all four together in the aviary, giving them heat in the shelter, instead of transferring them to a cage in a heated birdroom.

I may add as a footnote that, despite the removal of their nest-box, the parents, nothing daunted, are again sitting, having, painstakingly constructed a new nest in a twiggy branch in a corner of the shelter.

As described above, E. J. Boosey has bred the Purple Grenadier Waxbill (*Granatina iathinogaster*). It is believed that this may be a first success.

Any member or reader knowing of a previous breeding of this species in Great Britain or Northern Ireland is requested to communicate at once with the Hon. Secretary.



Copyright] PURPLE GRENADIER WAXBILLS AND YOUNG. *[Alec Brooksbank*

[*To face p.* 106

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[Dudley Zoo

YELLOW-BACKED LORY

Young bird eating fruit, old male below and old female on left.

THE BREEDING OF THE YELLOW-BACKED LORY (*LORIUS FLAVOPALLIATUS*) AT DUDLEY ZOO

By D. H. S. RISDON (Dudley, Worcs., England)

When I reported this event to our Secretary I thought it might be a first breeding for the U.K., but he tells me that *Lorius garrulus*—the Chattering Lory—was bred by Lady Poltimore in 1913. As *L. flavopalliatus* is only a subspecies of *L. garrulus* there is, therefore, no particular honour and glory attached to what nevertheless I feel is an unusual breeding worth recording. In any case, as the bird was bred at Dudley Zoo we do not qualify for a medal, but when one considers the handicaps under which the parent birds reared their offspring, with screaming multitudes milling round their aviary, and compares this with the seclusion enjoyed by privately owned birds, I think all the more credit is due both to the birds and their keepers !

I have written about this particular pair of birds in previous articles. We have had them five or six years and every year they have nested and laid without results until 1958. On one previous occasion they did hatch a single young one which disappeared before it was a week old. Their management has always been the same. They have spent the winters in our heated bird house and the summers in a compartment of an outdoor aviary provided with a nest-box. They are very fond of the box and spend much time in it, even when not breeding.

Like most zoo birds they are tame and fearless. I think this factor contributed largely to their success, as nervous birds would never settle down to the constant comings and goings of humanity that are inevitable in a place of this kind. The following account has been compiled from the notes kept at the time by our senior bird keeper, Mrs. E. Harris, to whom, by the way, all the credit should go, as she and her staff had the care of the birds throughout the breeding period.

The birds were transferred to their outdoor aviary in May. The size of this is approximately 6 feet wide by 12 feet long, with a shelter at one end measuring 6 feet by 3 feet. The size of the nest-box, which was of the standard pattern, was approximately 9 inches by 9 inches by 24 inches high with the usual entrance hole high up in one side near the top. A 4 in. layer of crumbled, rotten wood was put in the bottom of the box. The Lories took to their box right away and as they spent a good deal of time in it it was difficult to know exactly when laying commenced. Throughout June, however, the hen was rarely seen, so we presumed (rightly as it proved) that she was sitting. This particular bird seems to lay a clutch of two eggs. This has been so in previous years, when her eggs were infertile, as well as this year, when an addled egg was found in the nest after the young one had fledged.

Early in July the hen began to reappear now and again and the cock

Young bird eating fruit, old male below and old female on left.

became more than usually aggressive. He is a demon at any time and is always ready to nip the unwary finger, but as the young one began to grow he became so savage that it was virtually impossible to enter the aviary and all feeding had to be done from outside. Even so Mrs. Harris did manage to get a peep into the nest-box on the 7th July and saw one youngster, which she estimated to be about a week old.

We were now somewhat concerned about suitable rearing food. The parents are of course nectar and fruit eaters, but we felt that such a diluted diet needed fortifying to supply the needs of a growing young bird. We therefore concentrated the ingredients of the nectar mixture by reducing the water content and offered every other conceivable food we could think of. I had discovered in a previous year that these Lories liked gentles and mealworms, so we offered these and they were eaten with obvious relish. We tried such things as boiled potato, boiled carrot, hard boiled egg, lettuce, and all kinds of fruit, but none appealed like the gentles and mealworms. I think a great deal of our success can be attributed to these.

On 19th July Mrs. Harris had another look in the nest-box and reported that the young one was then covered with grey down. Towards the end of July, as we all know, the mealworm famine began, so we had thenceforth to rely entirely on gentles. Fortunately these useful creatures were plentiful enough at that time of year. As the young one grew the parents took to eating more fruit, particularly apples and cherries and we now found it necessary to supply nectar twice, instead of once, a day.

The young bird was seen poking its head out of the nesting hole on 26th August and it finally fledged on 3rd September—a perfect specimen. We may, therefore, say that it took eight weeks to rear. Its colouring was almost exactly the same as that of its parents, except that it had a black beak instead of an orange one, and the iris of the eye was black instead of light brown as in the adult. Surprisingly enough its red colouring was as bright as that of its parents ; not as one might have expected a duller shade. The baby became tame almost at once and used to stick its little brush tongue through the wire netting to " taste " ones fingers. Now in October the whole family have been transferred to winter quarters in the bird house.

For those who do not know this Lory it is a bit bigger than a Senegal Parrot. Its head and body are bright scarlet, wings dark green with a vivid splash of yellow between the shoulders, tail dark green with a dull red bar across it, seen only when the tail is expanded, tibia dark green, feet black, and bill orange. The sexes are alike except that our hen and the baby both have much more yellow on the back between the wings than the cock. This may be a sexual difference or the cock may belong to the race *L. garrulus*. The description in *Aviculture* is somewhat confusing as it gives *garrulus* as having " a yellow band

across the shoulders " and *flavopalliatus* as having " a bright yellow back ". Now in October the beak of the baby is gradually turning from black to orange, but the iris remains dark.

This breeding of the Yellow-backed Lory is the only ray of light in an otherwise gloomy breeding season with us this year. Apart from a few Red-rumps and an odd young Rosella our parrakeets have produced nothing but infertile eggs. Waterfowl have also been disappointing. The Eagle-Owls have, however, again reared a nice young one.

* * *

SOME EXPERIENCE WITH EIDERS IN A COLLECTION

By J. O. D'EATH (Hadley, Herts, England)

The following notes although not culminating in a complete success story may prove of interest to fellow aviculturists who own waterfowl collections and who have been under the impression that the sea-ducks, including Eiders, are " difficult ". As a result, this most attractive species is rarely encountered in English collections and in my opinion should be more widely represented.

It was not until the autumn of 1953 that I was able to fulfil my long cherished ambition to re-establish Eiders in the collection here. This particular species (*Somateria mollisima*) had long been a favourite of mine since the pair I acquired in 1937 became casualties of the war.

Through the kindness of a friend I obtained, in 1953, two pairs of hand-reared birds hatched from Icelandic eggs. Naturally, my first thoughts turned to the feeding of the birds, which were released in my general collection of some thirty species. My basic idea was that the Eiders' diet would have to contain a high proportion of fish in some form or another. Any doubts about selective feeding were quickly dispelled when, in a short space of time, the birds became remarkably tame and required little persuasion to feed from the hand. It was, therefore, an easy matter to ensure that they received their special diet without other species in the collection consuming it and likewise to prevent the Eiders eating the grain put down for the other birds.

I had carefully studied Dr. J. M. Derscheid's notes (AVICULTURAL MAGAZINE, vol. 52, pp. 173–180) and decided that his recommendations, whilst undoubtedly the result of great experience and most successful, were not practical for my purpose. Similar attention was also given to advice on feeding Eiders by Laidlay (*The Care and Propogation of Waterfowl*) and to other notes on the subject. Both these authorities had advocated food which was either complicated

to prepare, or else likely to be in irregular supply. I therefore decided that I would experiment with a mixture which has since proved most successful. Initially I used medium grade, good quality, biscuit-meal and having scalded the required amount added one-third boiled cod's roe (which was obtainable regularly from local fishmongers). It was later found that this could be mixed raw with unscalded meal. The mixture was rolled into large pellets, about the size of a walnut, and fed by hand to each individual bird (a minimum of six at each feed). As an alternative, conger-eel, cut into adequate lengths, was fed bi-weekly. Occasionally prawns and shrimps were fed as a "cocktail". After about twelve months, however, the preparation of the aforementioned mixture became tedious and sometimes unpleasant in hot weather. I therefore decided to eliminate any natural fish, and fed a mixture of two-thirds biscuit and one-third fish meal, dried off with some growers' mash; sometimes cod liver oil was added. On occasion halibut oil was given for a brief period when one of the birds appeared off colour. The Eiders in the collection have now thrived on this feed for the last three years. It is, of course, generally known that the Eiders, Sawbills, etc., at the Wildfowl Trust, Slimbridge, are fed on raw eel, but high cost, uncertainty of supply, etc., would, I think, defeat the average waterfowl enthusiast.

So much for feeding—now to turn to some observations on breeding activities. I had not given any serious thought to the possibilities of my Eiders breeding, consoling myself with the fact that keeping them alive in good condition was an achievement in itself. Both pairs of birds came successfully through the moult in 1956 and in the spring of the year 1957 the drakes in full-dress were frequently displaying and uttering their delightful AH-OOO. In spite of other aviculturists' apparent difficulties in getting these birds through the moult, I have never experienced any trouble in this respect. My only observation on this supposedly difficult phase is that the Eiders feed more avidly than usual. At no time did I observe mating and any wishful thinking I had as to breeding was dispelled. Imagine my surprise and delight when doing a routine round of the nest-boxes on May 7th. I turned over the dead grass, etc., in a dog-kennel goose-box and there was an ominous bump which I expected to prove a Barnacle egg, but in the daylight left no doubt as to its identity—my first home-bred Eider egg. Having overcome the initial excitement of this find, a careful watch was kept on the box and my diary shows that a clutch of four eggs was laid in the space of a week, i.e. on alternate days. The laying bird was a dark-coloured duck, smaller in size than the other female of the second pair.

At that time a friend of mine was setting a consignment of Icelandic Eider eggs and I passed my clutch of four to him. My doubts expressed previously as to fertility were endorsed when none of the eggs hatched,

but two of them had embryos inside. This concluded the Eider activity for 1957.

Long before the birds had completed their moult which was successfully achieved, my thoughts were already running ahead to the ensuing season 1958. At the turn of the year two magnificent pairs of four-year-old Eiders were a constant source of satisfaction to me and the subject of much admiration from visitors to the collection. I was, however, to suffer a serious blow when, in February, one of the drakes, with little outward indication, suddenly died. A subsequent post-mortem indicated a fatty condition of the heart. No replacement for this bird could be found so I was left with a trio of Eiders. The drake which died was the mate of the duck which laid in 1957.

I kept careful watch on the birds and on March 29th I noted mating taking place between the laying duck and the drake of the other pair. For the purpose of identification I will hereafter refer to this bird as Female A and the other non-laying (1957) bird as Female B.

It was noticed that the drake had changed his affection to Female A and showed definite animosity towards B. No other notes appear in my diary until May 9th when Female B was recorded as missing from feed. An intensive search on the 10th revealed her sitting on an extremely well-concealed nest under a hollybush. This was indeed a surprise, as the bird in question was the neglected female. I restrained my curiosity to see what eggs there were until May 11th when, on lifting the duck, three eggs were revealed. A fourth egg was laid on the 13th May and all four were removed and put under a bantam for incubation. I thought it reasonable to assume that this would conclude egg production for 1958. However, this was only a beginning, as a brief account of subsequent events will show. On May 19th Female A laid her first egg in a scrape against the perimeter wire fence and in due course a clutch of four eggs was completed and removed for incubation. We now had eight eggs from two ducks mated to one drake. I had assumed that Eiders were monogamous and single-brooded as most authorities indicate. I was away from home on the 27th-28th May and on checking the collection on my return I immediately noticed that Female B was missing. This caused me some alarm and I wondered what tragedy had occurred in my forty-eight hour absence. However, fears turned to incredulity when I located her sitting at the base of a large Scotch pine in deep shade. I restrained my bursting curiosity for a further two days and on June 1st I lifted the duck, to reveal five eggs ! She had only laid four in the first clutch. I decided to let her continue to incubate as I was not yet certain of the potential fertility of her first clutch, still under a bantam.

At this stage I had thirteen eggs from the two ducks. The results from the first clutches were disappointing ; in the case of Female A, as the result of a terrific thunderstorm, the bantam let the eggs chill,

after she had been incubating for twenty days. Two of these eggs were fertile. The other clutch of four eggs from Female B were all clear. However, I was not disappointed as I was inwardly delighted that a precedent had been established by the two ducks laying. The position, therefore, at the end of May was that Female B was sitting contentedly on her second clutch of five eggs. My notes with regard to laying activities are nearly concluded, but on June 7th the dark Female A was acting suspiciously at the base of a young conifer (*Picea excelsa*) and by the evening of that day had laid an egg. By June 11th she had commenced to sit on her second clutch of three eggs, having laid seven in all, making a grand total of sixteen eggs from two ducks. Like any other aviculturist with experience of waterfowl I did not give any serious thought to the possible fertility of the second clutches, in view of the 25 per cent fertility in the first clutches. However, I thought that by letting both ducks sit I might be able to obtain data on incubation, etc. My notes show that the Eiders commenced to brood immediately the first egg was laid, and down was added continuously. Unless the ducks came off at night, I never once, in spite of close observation, saw them leave the nest. After four or five days I attempted to feed both ducks on the nest and they responded fitfully for the first fortnight, but would not feed at all after that. As incubation proceeded it was noticeable that they became decidedly weaker. It unfortunately did not occur to me until too late that I could have acquired some interesting data by weighing the ducks to compare their weight at the commencement and conclusion of incubation.

With the two ducks sitting and Female B due to hatch on the 24th June, I decided on 13th June to remove her five eggs and complete incubation under a bantam. Naturally I was not very sanguine of any concrete results, but was delighted when two Eider ducklings were hatched exactly on the twenty-fifth day of incubation. Both these ducklings survived three days, but I have a special note in my diary which reads " In my opinion, bantam hen too broody and did not encourage ducklings to feed ". It may be of interest to note that shortly after the removal of her eggs the duck referred to above found the other sitting duck and sat beside her for the whole period of her incubation !

On 6th July the dark Female A was due to hatch her three eggs. So that the duck should not get on to the water with any ducklings she might hatch I ran a small circle of wire-netting round the nesting-site. On the morning of 7th July a sturdy Eider duckling was doing his best to climb the wire. The duck was still sitting, but an immediate examination of the two remaining eggs showed that they were addled. On the spot I decided to make what to me was an interesting experiment, i.e. to let the mother rear the duckling herself. An enclosure

some five yards square with rock-work at one end for the birds to rest on was quickly constructed and the parent bird with duckling placed inside. Having travelled so far my next dilemma was " how, and what on earth I am going to feed the duckling on ? " The parent bird did nothing to encourage her offspring to feed from a dish of food, and the only alternative was floating food. I tried very fine biscuit-meal in which the duckling showed interest, but this quickly became saturated and sank. I then substituted ants' eggs being aware of their better floating qualities. I envisaged following this up at the two weeks stage with small particles of dried shrimp and prawn. I pinioned the duckling at seven days and this caused no check. In the meantime, the other duck got into the enclosure and shared the maternal duties. This instinct, of course, has been recorded by several observers of Eiders in the breeding colonies. All went well for eleven days, the duckling visibly growing. But my increasing confidence in the successful outcome of my experiment received a severe blow when on the morning of 14th July I found the young Eider lying dead outside the wire-netting. It looked as if one of numerous birds in the collection, perhaps an Emperor Goose or Black Swan, had tried to enter the wire enclosure and made a small gap through which the duckling escaped and could not find its way back. This final stroke of misfortune rang the curtain down on the interesting Eider activity of 1958.

To summarize what I have recorded here, it would appear that Eiders can be kept in trios and that they will breed. Further, that they will not only lay two clutches, but the second clutches will prove fertile.

I mentioned at the beginning of these notes that I was not recording a success story but only a partial one. However, like all aviculturists armed with more experience, one looks forward to better luck and, in conclusion, I hope we shall see this delightful species more strongly represented in collections.

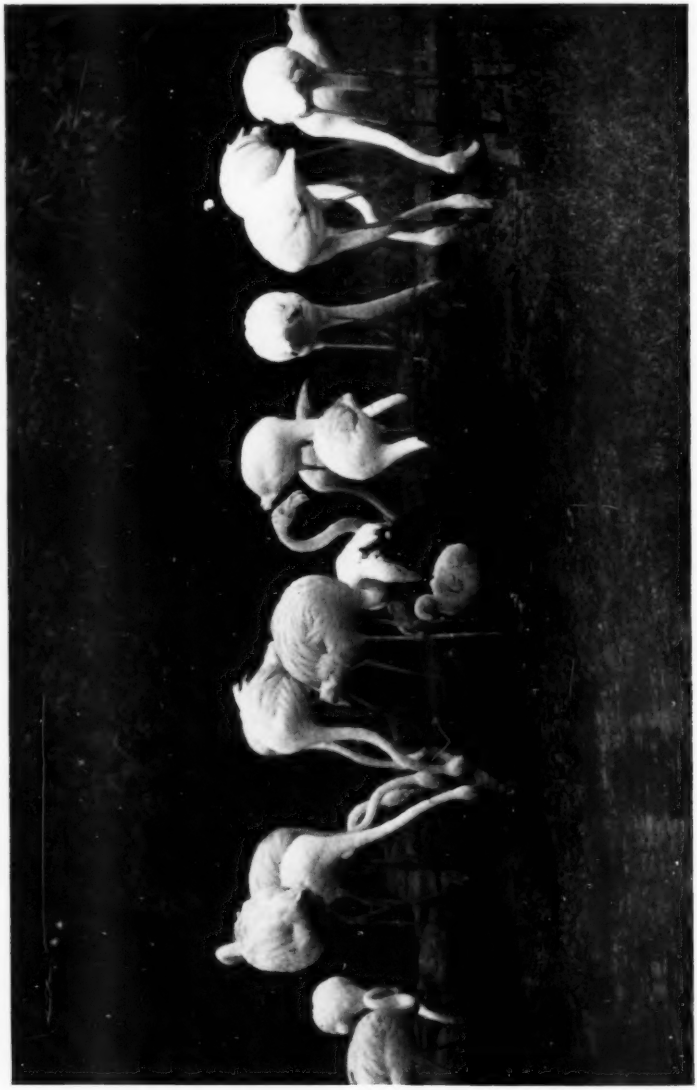
THE BIRTH OF A FLAMINGO IN BASEL ZOO

By Dr. Ernst M. Lang (Basel, Switzerland)

An artificial swamp for the Flamingos was first created in Basel Zoo in the year 1957. Where once an immaculately kept lawn had grown, there now stretched a swampy meadow. As soon as the lawn had been flooded, the Flamingos themselves gave the final touches to the new landscape. With mincing steps they walked lightly over the wet ground, softening it with their webbed feet. At the same time we added supplementary foodstuffs to ensure complete nourishment. With the approach of the first warm spring days, some of the birds perched upon elevated spots and, with their beaks, began arranging small clumps of earth in layers around them ; within a few days these had distinctly taken the shape of mud-nests. About nine birds were busily engaged in building when a cold spell set in, putting an end to the breeding inclinations of most of the builders. Work continued on four nests, however, and, on 6th June, 1958, we saw the first egg, which was carefully tended by the female Flamingo. She fondled and moved it constantly with her beak and, when on the days following three further eggs appeared in the other nests, the hatching business in our colony was in full swing. The males regularly took turns in sitting on the eggs and each pair defended its nest against the others. Flamingos mostly lay only one egg which is guarded with the utmost care. To allow the egg to cool from time to time, the parent bird stands up and turns it with its beak.

We were almost ready to believe that the hatching attempts were doomed to failure. It is known that these long-legged birds find difficulty in courtship owing to one of their wings being clipped. One egg that had unfortunately rolled out of the nest proved to be infertile. Then, to our great astonishment and delight, on 12th July, after twenty-nine days' incubation, a little ball of fluff with tiny pink legs and a pink beak was hatched. At first the moist downy feathers clung to the small, rapidly breathing body, but soon they unfolded and the tiny bird crept from under its mother's sheltering wing and peered curiously over the edge of the nest into the strange wide world. A few hours after the birth the Flamingo father bent over the nest and fed many drops of black juice from his stomach into the young bird's beak. Five days elapsed before the newly born chick ventured to leave its hill-nest, only to climb back into it again very soon. These expeditions were to become a daily event, however, always being prolonged, and before long the little Flamingo proved itself also able to swim.

Both parents concern themselves with watching over their offspring who, ever again, returns to its nest to be warmed by its mother.



Young Flamingo in Basel Zoo. [*Paul Steinemann*

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Now, in the middle of October, the young Flamingo in its brown plumage is still being fed two or three times daily by its parents. It displays such an abundance of life that there seems to be every justification for the hope of seeing it grow up happily.

In the large aviary where the Red-cheeked Ibises, *Comatibis eremita*, have already brought up two families, the Gough Moorhens have successfully raised three chicks. They were hatched on 16th June, and are now moulting, their first brown feathers being replaced by the black plumage of the adult bird.

From a pair of Tasmanian Waterhens, *Tribonyx mortieri*, we have reared seven chicks this year. The first three eggs were incubated artificially. Afterwards the female took care of another clutch of four eggs, but we had to remove them shortly before they were hatched. Four young ones have already been raised. Some of these birds are living in complete freedom in Basel Zoo and are so tame that they will eat out of your hand.

* * *

MANED GEESE

(or, AUSTRALIAN WOOD DUCK)

By J. C. LAIDLAY (Perth, Scotland)

Undoubtedly one of the joys of Aviculture is the successful breeding of one's birds. What is the cause of any success is so often difficult to determine. Seven or eight years ago some wild caught Maned Geese came into my possession, one male and two females. Four years later five eggs were laid, one broke in the nest and four young were reared, three females and one male. I kept two of these females and was given a drake. Last year there were no eggs, this year the two old ducks laid clutches of seven and eight respectively. The clutch of seven all hatched and were all reared. None of the eight clutch hatched, and though the drake was seen treading both ducks he went about with one only, driving the other one away. I think, and of course it is only a guess, that possibly this duck was a sister ; waterfowl usually do not breed successfully when closely related and if the practice is continued over a period of years complete infertility results. It is difficult and dangerous I well know to lay down any law in Nature, but as far as I can observe one or two conditions are needed in the spring to satisfy the Maned as to nesting, i.e. mild, hot days, producing grass, is obviously one and I should say that they certainly like, and may need, a rather mixed diet and definitely prefer some rather strong scented and tasty green food. Here, with me, anyway, thyme, mint, and dandelion they love best of all, also all forms of campanula and pinks are hunted for and eaten. With regard to nesting boxes they like them fairly high up and well-screened. The drakes start the business of nest hunting,

going in and out of them before the ducks do. This year my two young ducks with their drake went through all the motions of nesting, treading, visiting nest boxes, etc., but did not lay. When are Maned adult? To go back to the seven young that did hatch, they all started grazing on their third day and all were fully grown by seven weeks. They were fed on " turkey starter " meal soaked to a mealy consistency with milk and one hard-boiled egg grated fine, with chopped lettuce. This was their diet when shut up at night in their coops. It is interesting to hear that Heer D. G. Schuyl, of Rotterdam, has reared four this year. Terry Jones had one young one. All these five birds were females, five out of my seven are females, three of my previous four were females, this seems to be a great predominance of females. Does this apply in Nature? Terry Jones has, I believe, a second clutch, possibly sexes may then balance a bit. Since writing above notes I hear the second clutch were females.

* * *

DARENTH-HULME, 1958

By KAY BONNER (Southgate, England)

We finally came to the conclusion that we really had far too many birds. Drastic reductions were made during the autumn and several zoos were considerably enriched thereby. But such is the way of aviculturists, other birds have gradually replaced them. Perhaps the most interesting, at least from a sentimental point of view, are the pair of Blue Crossoptilons, " Emma " and his mate, the rearing of which was described by the late Sydney Porter in the AVICULTURAL MAGAZINE, 1957, 52. Also from " The White Gates " we had a pair of Sheld-Ducks. Our entry into the ranks of waterfowl keepers proved a dismal failure. We put them out on the lawn and they gave us great pleasure, but for how short a time! During the very first night of their liberation the duck disappeared without leaving trace. We then decided waterfowl were not for us, so we sent the drake to " Whiteabbey " to live in ideal surroundings with Sir Crawford McCullagh's numerous ducks.

Breeding successes amongst the parrakeets were few and far between, so many of our birds are in the doubtful starter class—Patagonian Conures, White-bellied and Black-headed Caiques, Green-winged Kings (probably both males), etc. The small flocks of Lineolated Parrakeets and Abyssinian Lovebirds did, however, manage to increase their numbers.

The Red-faced Lovebird colony is now somewhat reduced, but still numbers twenty-six. Once again they proved comparatively hardy.

The losses directly attributable to the weather were one male and one female. Two females were brought in egg-bound during December : these responded to treatment and were eventually returned to the colony. As far as we can at present tell there is only one young one in evidence, but there may be more to come—we hope.

The Fruit Pigeons have not done well. The old breeding pair of Green Imperials nested five times, but so far have succeeded in rearing only one young one. The first egg failed to hatch although it contained a fully developed chick : second nest, young reared : third nest, young hatched but was crushed after two or three days : fourth nest, young died after three days : fifth nest, young in process of being reared. There was a rather remarkable occurrence with the young one already reared. Two days after hatching it somehow fell or was dragged from the nest and was found lying in the sand below, cold and apparently lifeless. By means of much breathing on it our attendant managed to revive it sufficiently to enable it to be returned to the nest, when the female immediately brooded it. How it managed, when only some forty-eight hours old, to survive a fall of about five feet is more than we can explain. But survive it did and it is now perfect in every way. Another pair made a half-hearted attempt, making little effort to incubate their egg. Whereas last year the Pied Imperials laid fourteen or fifteen eggs, this year they have not managed a single one. This may possibly have been because we tried all six together as a colony. At present we have thirteen of these voracious Imperials—it is difficult to visualize just how much fruit they consume during the course of a week !

The Lemon Doves, as described in the last number of the MAGAZINE, reared two young ones, but the smaller, never a particularly good bird, died as a result of a chill after failing to shelter from a thunderstorm. During the first week of August the female laid again : one egg hatched on the 18th, the other being addled. After seven days she deserted and the chick was given to a pair of Barbarys with one young one about the same size. It throve amazingly as it received the sole attention of its foster-parents, their own young one having fallen on been pushed from the nest within a few days of the introduction of the " cuckoo ". The young Lemon prematurely left the nest on 4th September and, as it did not appear to be getting sufficient food, it was taken for hand-feeding. This was successfully accomplished on a mixture of fine biscuit meal, egg yolk, and " Stimulite No. 1 ", moistened with milk. Another young one was hatched on 9th September and was deserted almost immediately. It, too, was transferred to a pair of Barbarys, but on this occasion they failed to feed it.

From time to time we have had some extremely quarrelsome and spiteful doves and pigeons, but certainly none more vicious than our Black Bronze-winged *Henicophaps albifrons schlegeli*. All four were housed

together for the winter and one unhappy day two or three set about the fourth, possibly it was a little off-colour, and with their sabre-like beaks literally tore it to pieces. Strangely, and most unfortunately, it was the only female of the quartet. The three males have moulted into really handsome birds.

Our most important recent arrivals are six Galapagos Doves *Nesopelia galapagoensis*, bred by J. W. Steinbeck, of Concord, California.

We have only six species of the more common pheasants. We are not very successful in breeding them, mainly because we do not keep any of the breeds of bantams recognized for their fostering abilities. We make do with our Araucanas and there never seems to be one broody just when we need it. This year it has been even worse than usual : the majority have not gone broody at all, and the few that have have done so too late to be of much use. Owing to the excessively wet weather we have not reared Chinese Painted Quail in our usual numbers.

In the wilderness aviary losses during the winter were negligible. Numerous Bronze-winged Mannikins, Zebra Finches, etc., have been reared, but in general the results have been rather depressing. Starlings and Mynahs hatched many young but only an occasional one was fully reared—this in the main owing to the mealworm famine at critical times. Almost unlimited quantities of gentles are not a satisfactory substitute.

Our most regrettable loss during the year was "Jobo", the East African Brown-headed Parrot *Poicephalus cryptoxanthus*, which was the subject of the coloured plate in the January-February, 1955, number of the MAGAZINE, and which had been with us well over ten years.

* * *

MY PARRAKEETS IN 1958

By L. RAYMAEKERS (Brussels, Belgium)

Most parrakeet keepers this year on the Continent have been bitter about the weather during spring and summer, which upset many of the breeding pairs. For me the breeding season this year has been a moderately fair one. The majority of my parrakeets seemed reluctant to come into early breeding condition, nevertheless all my pairs went to nest except the Kings which refused to breed ; the 1956 imported hen seemed to be too young, the cock started feeding his hen and was very temperamental, but the hen took no interest in their nest-box.

My pair of Many-coloured of that brilliant, light green colour had a clutch of five fertile eggs and five chicks hatched, but the cold May nights must be the reason they have not been reared to maturity. My pair of uncommon Green Rosellas, also called Tasmanian Rosellas, has reared seventeen youngsters in three years and this year again reared five youngsters, two cocks and three hens.

A pair of Pennant's, the hen of which was bred here in 1957, laid a clutch of eight eggs, all proved fertile, but failed to hatch. This young hen did not sit well enough. A second pair of Pennant's also laid a clutch of eight eggs, seven chicks hatched but only two were reared to maturity, the other five died, I believe on account of bad weather. A third cock Pennant's mated to a Yellow Rosella (*Platycercus flaveolus*) laid a clutch of five eggs and reared five healthy youngsters which, I suppose, will resemble the Adelaide variety.

A fine pair of Crimson-winged, which every season rear a brood, had three youngsters but only reared one to maturity.

My lutino Ring-necked this season reared only one chick, which I believe to be a cock. I have had bad luck with my Princess of Wales. The hen laid three clutches, eight chicks hatched, but all perished in the nest-box. I believe the cock interfered and killed the chicks.

A Turquoisine hen laid five eggs, but all proved clear ; the cock came into breeding condition too late. Bourke's did not fail to rear a few chicks as usual. All my Bourke's are that very rich colour, with bright breast.

It would perhaps interest our parrakeet breeders to hear that during the past few years a few cinnamon Bourke's have been bred in Belgium. These cinnamon Bourke's look very nice, with pale colours and rosy bellies.

My Splendids did very well. A pair imported from Australia reared five chicks in two broods. A second pair, coming into breeding condition somewhat later, laid four eggs and reared four chicks, all very well sized and shaped. Young Splendids when in good

condition may be sexed at about three months of age, the cocks showing at that age their first red feathers on the chest.

So, as usual, 1958 had its successes and failures, and I believe I had my share of both.

* * *

1958 BREEDING RESULTS

By JOHN THORPE (Littledean, Glos., England)

Results have been reasonably good at Littledean this year in spite of the very damp and miserable summer.

Two pairs of Red-rumps produced nine youngsters.

Princess of Wales.—Two young from four eggs.

Bourke's Parrakeets had three nests. The first in March when five young were frozen to death due to the hen being off the nest for a very short period, the weather was bitterly cold. The second nest produced three young from five eggs ; one youngster died just before leaving the nest. From her last nest two young were fully reared.

Golden-mantled Rosella.—Nine fertile eggs laid, five hatched and then the lot were deserted because I disturbed the hen by opening the nesting box when she was sitting. There must be a moral here somewhere.

Lineolated Parrakeet.—The hen vanished for weeks into a hole under the concrete step that is in their aviary but whether she laid or not we cannot tell, certainly she reared no young.

Abyssinian Lovebirds.—Four young dead in shell. Quite happy about this, at least they did try this year.

Indian Ring-necks.—The pair that I've carefully cosseted for two years moulted into two magnificent cocks.

Barrabands.—Hen too young to go to nest.

Rock Peplars.—I lost the cock bird in the spring and was unable to replace him in time to give the pair a chance to breed.

Anderman Starlings.—A pair made a nest of sorts in an old parrakeet nest-box but did not lay.

Chinese Painted Quail.—Reared four after losing their first three by accident. They were drowned in the water dish. The hen laid thirty-odd eggs.

Mistle Thrushes.—A pair of these very attractive birds reared two nests of four until nine or ten days old before losing them : we just could not supply enough live food. They are delightful aviary birds, quite fearless and very confiding. The hen of my pair nested only 4 inches from the wire netting and nothing would disturb her.

From the Pheasants we had eggs of Goldens, Amhersts, Versicolor, and Old English Black-necks then lost the lot, forty-seven, through the incubator failing at almost hatching point. We are having the

incubator converted to electricity this autumn but it is rather like locking the stable door after the horse has gone.

The breeding of the Princess of Wales is particularly gratifying. We had them quite early in the spring and put into their aviary our usual parrakeet nesting box. The hen would not look at it. We put another type of box in, this time hanging it fairly high up, but to no avail she would not even alight on it although we did see the cock give it a cautious " once over ".

Through the help of a good friend we eventually got an enormous " grandfather clock " nesting box over seven feet tall. We rammed it hard with turves, threw in a few pieces of peat and waited to see if it met with the hen's approval. She approved, and within a week was sitting. She proved an exemplary mother and reared two fine young ones ; she had a clutch of four eggs but two of them were clear.

* * *

LONDON ZOO NOTES

By J. J. YEALLAND

A specimen of Mantell's or the North Island Kiwi (*Apteryx australis mantelli*), presented by the Government of New Zealand, arrived early in October. It is a bird that had been accidentally caught by the foot in a trap and so successfully treated that, apart from having lost the tip of one toe, it is in good condition.

Mantell's Kiwi has been kept at Regent's Park on a number of previous occasions, the record of longevity in the Gardens being just over nineteen years. Others have lived from ten to thirteen years and several eggs have been laid.

Birds new to the Collection are a Uganda Green Pigeon (*Treron australis granviki*), presented by Mr. J. R. Newmark and a Himalayan Ruby-throat (*Erithacus p. pectoralis*) received in exchange.

Mr. E. H. Hawke has sent a gift of Sunbirds—South African Olive (*Cyanomitra o. olivacea*), Eastern Little Purple-banded (*Cinnyris bifasciatus microrhynchus*), White-bellied (*Cinnyris talatala anderssoni*), Scarlet-breasted (*Chalcomitra senegalensis gutturalis*), and Kirk's Amethyst (*Chalcomitra amethystina kirki*).

Dr. K. C. Searle has presented a Great Barbet (*Megalaima v. virens*), a Mongolian Lark (*Melanocorypha mongolica*), a Grey Thrush (*Turdus cardis*), and a Silky Starling (*Spodiopsar sericeus*).

A hawk which flew on board a ship some 500 miles westward of the Azores during September was brought to London by Mr. E. H. Burke, and proved to be the nominate race of *Falco sparverius*, known here as the American Kestrel and in its native land as the Sparrow Hawk.

Two more Gough Island Moorhens have been bred. The older chick helped the parents in the care of the younger ones, driving off other birds that ventured near and sometimes giving assistance with the feeding. Two Sonnerat's Jungle Fowl, a second Superb Starling, and a Malayan Glossy Starling have been bred. The Greater Sulphur-crested Cockatoo has now left the nest, though it goes back to roost. It is still being fed by the parents.

An African Cattle Egret or Buff-backed Heron was hatched and lived until it was about half-grown.

A Slender-billed Cockatoo that was said to be eighty-five years of age when it was received in 1937 has died. This was the bird known as " Old Bill " and was quite a talker. If it was as old as it was reputed to be, this may be a record for the species. There are various records of cockatoos living to great ages in captivity, one Greater Sulphur-crested in Gloucestershire living to 120 years and another in Sydney (described as " oldest inhabitant " of that city) about which an account appeared in *Country Life* in 1916, and which was still living at 119 years.

It was, if I remember, the Rev. C. D. Farrar who told the story of the parrot that was bequeathed together with a very generous annual payment for its keep. This particular species was easily and cheaply replaced in those days, so that particular bird " lived " for a remarkably long time.

It is, of course, a popular belief that any parrot will live in captivity for very many years, and this calls to mind Long John Silver's pronouncement on longevity in these birds. " They lives for ever mostly," he said.

* * *

COUNCIL MEETING

A Council Meeting was held on 10th November, 1958, in the Council Room, Zoological Society of London.

Professor Jacques Berlioz, Muséum National d'Histoire Naturelle, Paris, was elected an Honorary Fellow.

* * *

Society's Medal

The Society's Medal was awarded to :—

Mr. G. C. Lynch, for breeding the Purple Finch (*Carpodacus purpureus purpureus*).

Mr. A. A. Prestwich, for breeding the Lemon Dove (*Aplopelia larvata larvata*).

Arthur A. Prestwich,
Hon. Secretary.

BRITISH AVICULTURISTS' CLUB

The sixty-fourth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, South Kensington, on Monday, 10th November, 1958, following a dinner at 7 p.m.

Chairman : Miss P. Barclay-Smith.

Members of the Club : P. C. Bath, Hylton Blythe, A. W. Bolton, Miss Kay Bonner, W. Brain, Captain A. A. Clarence, Major C. N. Clayden, W. D. Cummings, Mrs. R. E. Darnton, Sir Godfrey Davis, J. O. D'eath, Mrs. H. Denny, O. E. Dunmore, M. D. England, Squadron-Leader C. Everitt, Mrs. C. Everitt, Miss Ruth Ezra, Colonel H. B. Finch, Miss E. G. Ganner, J. C. Garratt, Dr. E. F. Gleadow, Dr. R. Gottlieb, F. Grant, H. J. Harman, L. W. Hill, Dr. E. Hindle, Miss S. I. Hobday, F. E. B. Johnson, F. Terry Jones, Miss S. R. Joseph, Dr. R. S. Kirk, R. G. Kirkham, Miss E. Maud Knobel, Miss M. H. Knobel-Harman, A. J. Lambert, Mrs. E. M. Lonsdale, G. C. Lynch, A. F. Moody, F. Mosford, G. S. Mottershead, H. Murray, S. Murray, Sir Crawford McCullagh, Bart., K. A. Norris, W. R. Partridge, C. M. Payne, D. H. G. Phillips, A. A. Prestwich, D. H. S. Risdon, S. Sanderson, R. C. J. Sawyer, D. Seth-Smith, M. A. Snazle, A. C. Soanes, E. O. Squire, Newton R. Steel, P. Sutton, J. Thorpe, E. A. Tickle, Mrs. P. V. Upton, E. N. T. Vane, C. H. Wastell, Mrs. C. H. Wastell, Mrs. Grace Wheatley, H. Wilmot, J. G. Woodnutt, J. J. Yealland, D. Young.

Members of the Club, 69 ; guests, 58 ; total, 127.

Before introducing the speakers for the evening the Chairman welcomed Professor Jacques Berlioz, the world-authority on Humming Birds, and said she had great pleasure in announcing that at the Council Meeting that afternoon Professor Berlioz had been elected an Honorary Fellow of the Society. Professor Berlioz, in his usual charming manner, expressed his thanks for the honour accorded. The Chairman also welcomed the Marquis Fioravanti, of Florence.

Introducing Mr. and Mrs. R. E. Darnton the Chairman reminded members that this was the fourth occasion on which they would have shown some of their films. The first had been " From Hippos to Sunbirds ", followed by " From Flamingos to Rhinos " and " Tobago and Nesting Flamingos in the Caribbean " : and now " Birds, Beasts, and Butterflies of Equatorial Africa ".

Needless to say, the present film is of the very high standard associated with Mr. and Mrs. Darnton. Its variety may be judged from the following short summary supplied by Mrs. Darnton :

" The film opens in the Belgian Congo with various roadside scenes, a colourful native market, and the great rivers of lava which have flowed over the years from a still active volcano, into the waters of Lake Kivu.

At Kisenyi, the Resident, M. Weber, kindly arranged a Watutsi dance for us to photograph. After a few days spent in the Parc Roi Albert, we revisited the Queen Elizabeth Park in Uganda, and could not resist taking some further pictures of the many water birds which frequent the shores of Lake Edward.

We then drove on to Kenya, where we stayed in the various reserves, including the Marsabit in the Northern Province. Here we found the Uaso N-Yero in flood, our car fell into a flooded donga and we were marooned in camp with only one tin of soup and one ounce of cheese left ! However, we managed to film some birds and beasts in spite of the weather."

The sustained applause at the end showed that the large audience fully appreciated the skill and patience required for the taking of such a film. The Chairman summed up the highlights and thanked Mr. and Mrs. Darnton for giving the Club a memorable evening.

The next meeting of the Club is on **Monday, 12th January, 1959.**

ARTHUR A. PRESTWICH,
Hon. Secretary.

* * *

NEWS AND VIEWS

An aerial survey shows that there are now 735 Trumpeter Swans in the United States. This is 247 more than last year and the highest number for thirty-one years.

* * *

R. W. Drury has bred Spengel's Parrotlet *Forpus passerinus spengeli* : a nest of five fully reared. This is undoubtedly a first success. Last year Drury bred two Spengel's × Guiana Parrotlet racial hybrids. Other birds bred this year are one Plum-headed and four Indian Ring-necked Parrakeets.

* * *

M. van Grootel, who has recently established a small zoo in Belgium, has bred a blue Queen Alexandra's Parrakeet. It was the only blue in a nest of three and is described as being " a small hen, rather inclined to rickets ", whereas its nest companions are strong and of normal size.

* * *

J. W. Steinbeck, Concord, California, writes of his Galapagos Doves : " I have raised over seventy-five young birds from the flock my friend brought back last winter. He said that on the islands these birds are so tame they can just be picked up. If anyone sits down in their pen they will climb all over him—it is very amusing to watch them."

* * *

Walther Langberg, Copenhagen, reports: "My pair of Grey Parrots have two young in the nest, about fourteen days old. This time only three eggs were laid and one of these was infertile. I had two young in 1956, two in 1957, and as I have again had two this year it appears as though the old pair only want to rear two young at a time."

* * *

During 1957–58 forty-nine species of birds were bred at the Adelaide Zoo. Amongst the birds listed in the *Eightieth Annual Report of the Royal Zoological Society of South Australia* are: 9 Egyptian Geese, 1 Germain's Peacock Pheasant, 2 Nepal Kalij Pheasants, 1 Razor-billed Curassow, eleven species of doves and pigeons, many of the native parrakeeets, 2 Bare-eyed Cockatoos, 4 Quaker Parrakeets, and 9 Nyasa and 26 Peach-faced Lovebirds.

* * *

Mrs. D. K. Draper has bred the Striated Coly or Speckled Mousebird. Two young were reared in the first nest, and a further two, or possibly three, are in process of being reared. This is probably the first success since G. H. Gurney reared two in 1914. Before then H. B. Wilson had bred two broods at least in 1912, with partial success the previous year.

Mrs. Draper has also reared some Pigmy Cardinals or Black-crested Finches and some Lineolated Parrakeets.

* * *

H. Murray has bred 11 Cockatiels, 9 Nyasa Lovebirds, 5 Bourke's, a few Bicheno's Finches and assorted waxbills, and 10 Chinese Painted Quail.

Concerning the Cockatiels, he writes: "My old original cock bird, 'George', I bought from Mr. Vane in 1947, is still with me and reared seven good young this year. He is a fine, big bird and in the course of his life has reared between sixty-five and seventy young, all nice birds. 'George' has one peculiarity. He will not permit a feather to grow on the head or neck of his hen and this gives her a curious appearance, quite vulturine. Also she naturally feels the cold in the winter. He does not pluck any other part of the hen or any other birds. Whether in his avian mind he thinks that this makes her less attractive to rivals I do not know, but I have never known her to wander. In fact, I have always found them most affectionate to one another."

* * *

It is the aim of the Editor to produce a well-balanced Magazine. But it must be remembered that this can only be achieved with the full co-operation of the members. Unless they write upon the subjects which interest them, those subjects will of necessity remain insufficiently represented in the Magazine. A. A. P.

CORRESPONDENCE

THE LOSS OF RED COLOUR BY BIRDS IN CAPTIVITY

Mr. John Yealland has kindly drawn my attention to the recent letters from Mr. Edward J. Boosey, Sir Godfrey Davis, and Mrs. D. E. Bucksey on the loss of red colour by birds in captivity.

Red colour in feathers is due to the presence of pigment, which may be one of at least four different types. In touracos the red wing feathers are coloured by *turacin*, a copper porphyrin pigment unknown elsewhere in the animal kingdom. Some red feathers, usually the red-brown ones, owe their colour to melanins, a group of pigments which also gives blacks, browns, greys, and even yellows. The third group of pigments gives yellows and reds in the feathers of psittacine birds ; the chemical composition of these pigments is still unknown, but their production does not appear to depend on food. These parrot pigments are not found elsewhere among birds and the fact that their production appears to be independent of the type of feeding explains the clear-cut observation of your correspondents that psittacine plumage does not fade in captivity.

The fourth group comprises yellow and red carotenoid pigments, which are widespread among plants and animals, giving colour to carrots, capsicum, tomatoes, yew berries, prawns, lobsters, starfishes and many other living organisms. There are at least 60–70 naturally occurring carotenoid pigments, many of which are well-known chemically. Among birds the feathers of canaries are coloured by a carotenoid and there are many other species coloured by one or other of these pigments. Recent research has shown that the dark red and violet feathers of some cotingids are coloured by rhodoxanthin, a carotenoid occurring in the leaves and fruit of some plants. The pink of flamingos is caused by the deposition of a reddish carotenoid, which is probably identical with or very closely related to astaxanthin, the red pigment of prawns and cooked lobsters. The pink colour fades in captive flamingos unless the food contains substances such as cockles, shrimps and so on which contain either the right carotenoid or one very closely related to it. I have less definite information on the feather pigments of the numerous passerines kept in captivity in this country, but I would suggest that many of the reds are actually carotenoid and not melanin and that their fading in captivity is due to a lack of the correct carotenoid source in their food. In some cases the bird may be able to take in a yellow carotenoid and change it, in the body, to a red carotenoid. This is, however, by no means the rule, and certain carotenoids such as lycopene (from tomatoes) or violaxanthin (from pansies) are not assimilated by birds and therefore do not appear in the feathers.

In the Orange Weaver, Mr. Boosey says, that the vivid geranium red of newly imported birds fades to orange, while in the Pin-tailed Nonpareil the crimson breast patch fades to a straw colour. This suggests that the original pigment is a true red carotenoid present in the natural diet, but lacking in that fed to captive birds, and that, although the birds absorb yellow carotenoids, they are not able to change them to red ones. More or less all vegetable foods contain yellow carotenoids and these would be taken up by the bird and deposited to give the disappointing oranges and yellows.

There is no virtue in feeding red foods unless they are known to contain carotenoids. Thus beetroot is not suitable, nor is cochineal which contains a red pigment totally different from the carotenoids and which, as far as I know, has never been found in birds. It might, however, be worth trying to feed with seeds or fruits *known to contain* red carotenoids, for instance

Capsicums, which contain capsanthin, or
Yew berries, which contain rhodoxanthin

I can assure Mr. Boosey, that there are quite a few scientists who work on animal pigments rather than atomic piles. The results of their work are spread throughout thousands of scientific papers and at the moment Professor H. Munro Fox, F.R.S., and I are actively engaged in preparing a book on the nature of these colours.

ZOOLOGICAL SOCIETY OF LONDON, H. GWYNNE VEVERS.
REGENT'S PARK, LONDON, N.W. 1.

IMPORTATION OF BENGAL PITTAS AND LOSS OF RED COLOUR BY BIRDS IN CAPTIVITY

In his article on the Bengal Pitta Mr. Reid Henry misquoted me as saying of this species in my book *Foreign Bird Keeping*, " It *is* by far the most commonly imported into Europe." Actually I should not have been likely to have said this, as much of my book was written during that long sterile period just after the war when no foreign birds of any kind were allowed to be imported.

What I actually wrote was : " It is the only member of the family that *was* ever at all commonly imported into Europe." I was thus clearly referring to the past, and my statement therefore remains true, no matter how many Hooded or how few Bengal Pittas Mr. Reid Henry may since have seen in this country.

* * *

I note that Mrs. D. E. Bucksey flatly contradicts my statement that Red-vented and Red-eared Bulbuls retain their red after a moult in captivity, saying : " This is *not* the case." May I repeat, therefore, that, in my experience, it *is* so ?

Off and on over the years I, too, have kept both species, and at present I have a pair of Red-eared Bulbuls which not only did not lose their red in captivity, but actually gained it—without the help of elderberries or colour feeding.

Aviary-bred in this country, they came to me in juvenile plumage with light brown ear patches. Since then they have moulted twice, and the ear patches are the same bright scarlet—*not* pink—as those of imported specimens.

EDWARD J. BOOSEY.

BRAMBLETYE,
KESTON, KENT.

JAPANESE BLUE FLYCATCHERS, COLOURS OF MALE AND FEMALE WHITE-CAPPED REDSTART, LOSS OF RED COLOUR BY BIRDS IN CAPTIVITY

I very much enjoyed reading Edward Boosey's account of the rarer species in the collection at Keston. I well remember the hospitality extended to me there when I was last in England during the appalling January–February weather of 1956. However, I feel it is my sad duty to disabuse him of the idea that he possesses a true pair of Japanese Blue Flycatchers (*Cyanoptila cyanomelana cyanomelana*). The adult female of this species possesses neither blue nor black anywhere in the plumage ; the overall impression is that of a pale, olive brown bird with some russet on the rump. The centre of the throat is more or less whitish and the lower abdomen and under tail-coverts very obviously so.

During the spring passage through South-East China, numbers of these birds are trapped and then become available here in Hong Kong. As always, the females are few in number ; largely, I suppose, because the trappers can see little value in the dull coloured hens. In a consignment of fifty or sixty birds one is lucky to be able to pick out one or two females. A few birds are sometimes caught on the return migration during September and October and at this season immature males can sometimes be obtained. In general, the plumage colour is that of the female, but here and there bright blue patches appear to a lesser or greater extent. In some birds just a few bright blue feathers on the crown can be seen while in others large patches of blue coloration show on the head, wings, and back. The first time my Chinese dealer friends brought me two immature males they were highly delighted at the thought of having produced something new. Knowing my avidity for out-of-the-way flycatchers the initial price quoted was very high !

Immature males that I have bought in the Autumn have not assumed the full blue and black markings of the adult until the following July. At the time, I had supposed this was delayed by the conditions of captivity. This March, however, having picked out one brown bird from some fifty odd blue males I was disgusted, on closer examination, to find a few bright blue feathers on the crown and scapular region.

La Touche mentions two other races of this species—*Cyanoptila cyanomelana intermedia* which he calls the Siberian Blue Flycatcher and *Cyanoptila cyanomelana cumatilis* of West China. In this respect the two males which I have at the present are quite markedly different. One bird has been with me for two years during which time it

completely missed two moults, but has just undergone a complete and magnificent moult. It completely lacks the purplish-blue mantle of the bird commonly available here, neither are the black parts so black. The whole of the upper parts are of a lighter, greener blue that the typical Japanese bird and this must be what La Touche describes as the Siberian race. The difference is very obvious when one can compare it with the much more striking Japanese male which I have had in the adjoining aviary for the past eighteen months. I should very much like to see *cumatilis* which is described as having verditer blue upper-parts and no black on the breast.

I certainly agree with Mr. Boosey that this bird makes a delightful and beautiful aviary inhabitant. Compared with some other flycatchers, I find them easy to cater for and hardy. They do have two drawbacks. One is a tendency to gorge food and become fat and this can occur even in a large outdoor flight where they will sit over the food trays for the greater part of the day and stuff themselves. The other fault is that a percentage, housed and fed identically to their fellows, get " stuck in the moult ". This cannot be blamed on the lack of humidity in Hong Kong as anyone who has spent a summer here will assuredly tell you ! Another fault which cannot be exactly blamed on the bird itself is that it is liable to persecution. I have noticed that a pugnacious bird in a mixed collection always seems to single out for its spiteful attentions any bright blue bird. A Golden-fronted Fruitsucker and a Singing Honey-eater I possess will make a through nuisance of themselves towards anything which has the misfortune to be blue, be it a Blue Flycatcher of whatever species, Indigo Bunting, or White-capped Tanager. Flowerpeckers have the same nasty predilection for singling out blue birds to persecute, and my old male Narcissus Flycatcher, which tends to be aggressive to most things, is doubly so if the Japanese Blue in the same aviary alights on his singing perch.

Although I have had several female Japanese Blue Flycatchers during the past two-and-a-half years, I have not succeeded in keeping one for longer than a few months. Some I have disposed of to fellow aviculturists in England, but those that have stayed here always seem to come to an untimely end.

I wonder if Mr. Boosey is correct in his supposition that the male and female White-capped Redstart are alike in colour. It would seem strange that this should be so when other closely related species have such striking dissimilarities. La Touche evades the issue by simply describing the male without mentioning the female. Smythies in his *Birds of Burma* makes no mention of the female plumage either, but hints that the plumage is the same. The coloured plate illustrating this bird is marked simply " adult," while the Blue-throat, Ruby-throat, Shama, and Magpie-Robin illustrated on the same page are all labelled " adult male ". I should appreciate some definite information on this subject as the species does occur in South-East China and, although I have not yet been successful in obtaining any, I continue to brandish illustrations at my Chinese friends and hope that one day they will produce this bird—or better still, a pair !

I can add two local examples to the puzzling loss of, and retention of red and orange colouring on which Mr. Boosey comments in his letter. Why is it that the Narcissus and Tricolour Flycatchers fade almost to whiteness, while the smaller Japanese Robin-Flycatcher (*Siphia mujimaki*) fully retains the orange-russet breast ? Scarlet-backed and Flame-breasted Flowerpeckers retain the lovely areas of colour that give them their popular names. In the latter respect, I am watching with interest the ruby throats of my La Touche's Sunbirds (*Aethopyga christinae latouchii*) ; one is housed in the same flight as a male Scarlet-backed and the other with a Flame-breasted Flowerpecker. The sunbirds drink the same nectar and eat the same pulped fruit (in quantity, strangely) as the flowerpeckers. Alas, I fear that after this their first moult in captivity the brilliant ruby red feathers will become a dull orange red, while the flowerpeckers will be as vivid as ever. Certainly the sunbirds are very insectivorous and hawk tiny flies all day long while the flowerpeckers virtually ignore the relative abundance of this food in their heavily planted aviaries. If insects *are* the answer to this problem surely the sunbirds should remain bright and vivid and the flowerpeckers fade !

K. C. Searle.

Windsor House,
Victoria,
Hong Kong.

COMMENTS ON THE GENERIC NAME OF THE SILVER-EARED MESIA AND THE LOSS OF RED COLOUR IN THE PIN-TAILED NONPAREIL

It is not often that I venture to criticize statements made by experienced aviculturists but, despite my comparative inexperience as measured against that of Mr. Boosey, I feel I must comment on the reference made to the Silver-eared Mesia in his article " Some Rarities at Keston " in the July–August issue of the AVICULTURAL MAGAZINE.

First, the sharing of the generic name *Leiothrix*. All reference to this species of bird made in the Bombay Natural History Society Journals refer to it as *Leiothrix argentauris*. Bertram E. Smythies in his book *Birds of Burma* does likewise and even names three sub-species, i.e. *L.a. gertrudis*, *vernayi*, and *galbana*. Who is correct, the Bombay N.H.S. and Mr. Smythies or Mr. Boosey ? Since they are one of the species I used to specialize in I should very much like to know.

The second point is the description given to identify the hen. Quote : " The female is less brightly coloured than the male." This I must remark is no sure guide for the brilliancy of the plumage is controlled by diet. The true means of identifying the sexes is that whereas the male bird has a reddish rump, that of the female is a dull green.

Please do not think I am being supercritical but I would also like to comment on Mr. Boosey's letter on " The Loss of Red Colour by Birds in Captivity " regarding the passage on the seed-eating " fader ", the Pin-tailed Nonpareil. I must most emphatically disagree here for specimens kept both by myself and fanciers known to me and fed on nothing but plain, small canary seed have, if anything, intensified in colour at each moult. I feel Mr. Boosey must be getting confused with a sub-species of the Pin-tailed Nonpareil, of which quite a number have been imported during the past two years, which has a dull orange breast patch in full colour and no dietary treatment will cause it to develop the crimson breast of the generally known species.

5 BROOKLYN GROVE, C. EVERITT.
SOUTH NORWOOD, S.E. 25.

Note: The Zoo List gives *Mesia argentauris* (as given by Boosey) as also does Kinnear in the revised edition of Whistler's *Popular Handbook of Indian Birds*—ED.

THE USE OF ANTIBIOTICS IN THE TREATMENT OF ENTERITIS

I have just seen the correspondence in the AVICULTURAL MAGAZINE concerning antibiotics in the treatment of enteritis. With respect to one avian enteritic disease, readers might be interested in our work with streptomycin.

First, let me say that I know nothing about enteritis in small cage birds as all our work was done with quail. However, there are three kinds of evidence that a weak solution would not hurt finches or Budgerigars. One is that I have fed it repeatedly to day-old Bobwhites with never any observable bad effects. We have also given it to Budgerigars and Canaries with intestinal disorders with apparently beneficial effects.

In our work with ulcerative enteritis in Bobwhite Quail, we ran a preliminary test with aureomycin which showed no benefits, but chloromycetin was effective when mixed in the feed. While it is possible that other antibiotics would be helpful in quail enteritis, at least no other one has thus far been shown to be beneficial. The effects of streptomycin in prevention and treatment of the disease are not short of dramatic as several of our publications show.

Since all North American Quails, Puffed Grouse, wild Turkey, and Chukar are susceptible to ulcerative enteritis (also known as Quail Disease), members of the Avicultural Society handling these species might be interested in this treatment for an important disease of captivity. *Coturnix* is not susceptible and neither is the Ringnecked Pheasant, and immunity may extend to other Pheasants and Old World Gallinae.

If enough birds can be spared, perhaps of a common, prolific species, and a suitable means discovered for manual transmission, a test of antibiotics including streptomycin might be made for effect upon enteritis in small birds. Streptomycin Sulfate Merck (for veterinary use) is probably available without prescription, and 3 grams of it makes a gallon of effective drinking solution for quail.

I am enclosing a page of instructions we developed for quail. Additional copies of this are available as well as several reprints of our technical publications on this subject.

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VERNACULAR NAMES USED BY AVICULTURISTS

I have read Dr. Parkes' indignant letter, and note that the correct name of *Sialia currucoides* is Mountain Bluebird, and that it must not be called " Canadian " as its range extends beyond Canada. So presumably the Japanese Blue Flycatcher must not be called " Japanese " since it is also found in China and winters in Indo-China and Malaya. I object to his suggestion that I " invented " the name Mountain Blue Robin as " an improvement ". Actually I still have a letter from the breeder of my pair saying : " I am so glad to know the Robins have settled down . . ." and a card from Mr. John Yealland, Curator of Birds at the London Zoo, giving me the Latin name and referring to the species as " Mountain Bluebird or Mountain Blue Robin ".

Dr. Parkes, having conveniently omitted to mention that I gave the bird's Latin name, proceeds to complain about having to " mine " for information. Does he really think he had to mine so very strenuously in order to discover the identity of a species whose Latin name was clearly stated? If so, may he never have a harder task! As to " the use of these unfamiliar names for familiar species ", I think Dr. Parkes might do well to turn his attention to his fellow countrymen, who continue to mystify the rest of the world by calling *Melopsittacus undulatus* " Parakeet " or " Keet," instead of its official " simple and appropriate name " of Budgerigar.

EDWARD J. BOOSEY.

BRAMBLETYE,
KESTON, KENT.

Dr. Kenneth C. Parkes raises an important point in his letter on the confusion likely to be caused by the use of vernacular names of birds, for in a publication such as the AVICULTURAL MAGAZINE which is read in many parts of the world, difficulty of identification could occur unless the scientific name is also quoted.

For instance, *Anas rubripes* of North America, *Anas sparsa* of Africa, and *Anas superciliosa rogersi* of Australia are all known as Black Duck in their respective countries. The Maned Goose (*Chenonetta jubata*) is sometimes known in Australia as the Wood Duck : the Sparrow Hawk of Europe is *Accipiter n. nisus* and that of North America is *Falco s. sparverius*, known here as the American Kestrel.

When a plate and note appeared in the AVICULTURAL MAGAZINE during 1938, *Sialia currucoides* was given the name Mountain Bluebird and when another appeared during 1954, the bird was called the Mountain Blue Robin, but since the scientific name was quoted in both instances, there could be no mistaking the identity of the species.

Apart from being more cumbersome, the name North American White-headed Eagle is, I submit, preferable to Bald Eagle. The bird is *Haliaeetus leucocephalus* after all, and it is not bald, but has the head covered with white feathers.

Recently there were birds offered here as Butterfly Buntings. The only difference between them and the Painted or Nonpareil Bunting was the price. A friend of mine sent for a pair and received two males. His request for the scientific name was not answered.

J. J. YEALLAND.

ZOOLOGICAL SOCIETY OF LONDON,
REGENT'S PARK, N.W. 1.

BREEDING MOUNTAIN BLUEBIRDS

In the MAGAZINE for September–October, p. 148, I am credited with having reared three broods of Mountain Bluebirds. Unfortunately, I must correct this statement, which should have read " three broods hatched " as, in fact, only one young bird was

successfully reared this year. This was no fault of the parent birds, all of which brooded well, nor can I blame the weather, bad as it has been !

The trouble was due to the complete failure of the mealworm supply just at the time when this form of live food was essential, as I have found that this species are fed for the first week almost exclusively on broken up insects and are too frail to digest whole gentles until they are about a week old. Mealworms are easily " killed " and broken or squeezed out like a tube of toothpaste by the parents, but however much they beat a gentle on the perch, the skin does not break. At three to four days the young were thrown out of the nests and on examination every one was found to be choked by whole gentles wedged in the gullet.

These losses might have been avoided had I been able to obtain adequate supplies of small green caterpillars or even live ant cocoons, but from past experience they would have required 2,000–3,000 of the former each day, and I doubt if the parents would have accepted ant cocoons as they appear to refuse anything which does not move for feeding young.

The Red-winged Blackbirds are altogether more hardy and robust, and the brood was successfully reared on gentles alone.

It may be of interest to record that this species is far less insectivorous when once independent of their parents and soon begin to consume large quantities of seed. In fact, without access to a good seed mixture they are very inclined to die off during the period of the " baby " moult.

K. A. Norris.

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Purley.

THE SUCCULENT MAGGOT

When in India I had no trouble in getting large quantities of small, clean maggots of the house-fly. I used to put bran in a large clay chatti or water jar, well moisten the bran with water, and put the chatti in an outhouse, and in seven or eight days, when I put my hand in the bran was fermenting and hot and swarming with nice clean maggots. When I came to England I found matters not so easy. The idea of old fat hens or sheep's heads hanging in the attic or buried in the garden did not attract me. An old Indian friend told me in his youth he used to bury bullocks' liver in the compost heap. I found this effective but expensive ; then, quite by chance, as great discoveries come, I found how to produce small, clean maggots in quantity.

We have a much beloved Yorkshire terrier named Susan, and as she was partly responsible for this discovery I think her name should go on record. Now Susan is particular about her food and she has horseflesh fit for human consumption at 2*s*. 6*d* a pound. This is cooked for her, her apportioned share is cut up into small pieces and is put into a small flat enamel pie dish, and some broken dog biscuit called " Saval " No. 2 is mixed with the meat, and some gravy from the cooked meat poured over this delicious concoction. Susan often daintily picks out and eats the meat and leaves the soaked biscuit and, when I am at hand, I put the dish away to keep off the flies which are readily attracted by the delightful aroma. Sometimes the flies get there before me and I view with disgust the flies' eggs scattered over this nourishing and delicious food and I throw it away on the compost heap. One momentous day, however, the fly-infected food was not thrown away but by chance I found the dish in a cupboard. I looked at it, saw some movement, and moving the biscuit aside with a spoon I found on the bottom of the dish a large number of small clean maggots evidently feeding on the gravy-soaked biscuit. I gave these maggots to a cock Cuthroat which ate the lot. To test this accidental production of maggots, I soaked some of this broken dog biscuit with the meat gravy, exposed it to the flies, and then put the fly-infected food into a cool, dark cupboard, and in about ten days the bottom of the dish was moving with maggots. These were small, clean, without odour of any sort and, in future I hope when I want maggots I shall get them, without the assistance of dead hens or sheep's heads or bullocks' liver in the compost heap.

Godfrey Davis.

Beresfords,
Boughton Monchelsea,
Nr. Maidstone, Kent.

The Editor takes no responsibility for opinions expressed in articles or correspondence.

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LIST OF EXCHANGES AND PRESENTATIONS

GREAT BRITAIN.

Bird Study (British Trust for Ornithology).
British Birds.
Cage Birds.
The Ibis (British Ornithologists' Union).
Our Zoo News (North of England Zoological Society).

AUSTRALIA.

Australian Aviculture (Avicultural Society of Australia).

AUSTRIA.

Annalen des Naturhistorischen Museums in Wien.

BELGIUM.

Le Gerfaut.
Le Monde des Oiseaux (Association Ornithologique de Belgique).
Natuurwereld.
Ornithologie.
Zoo (Société Royale de Zoologie d'Anvers).

CHILE.

Biologica (Facultad de Medicina de la Universidad de Chile).

DENMARK.

Dansk Ornithologisk Forenings Tidsskrift.
Stuekultur.

FRANCE.

L'Oiseau et la Revue Française d'Ornithologie (Société Ornithologique de France et de l'Union Française).
La Terre et la Vie (Société Nationale d'Acclimatation de France).

GERMANY.

Biologische Abhandlungen.
Die Gefiederte Welt.
Die Vogelwarte.
Die Vogelwelt.
Freunde des Kölner Zoo (Zoologischer Garten Köln).
Journal für Ornithologie (Deutschen Ornithologen-Gesellschaft).
Luscinia (Vogelkundliche Beobachtungsstation " Untermain ").
Ornithologische Mitteilungen.

INDIA.

Indian Aviculturist (Bird Fanciers' Club of India).

NETHERLANDS.

Ardea (Nederlandse Ornithologische Unie).
Avivaria.
Onze Vogels (Nederlandse Bond van Vogelliefhebbers).

SOUTH AFRICA.

The Bokmakierie (South African Ornithological Society and the Witwatersrand Bird Club).
The Ostrich (South African Ornithological Society).

SWEDEN.

Vår Fågelvärld (Sveriges Ornitologiska Förening).

SWITZERLAND.

Der Ornithologische Beobachter (Schweizerische Gesellschaft für Vogelkunde und Vogelschutz).

U.S.A.

America's First Zoo (Zoological Society of Philadelphia).
Animal Kingdom (New York Zoological Society).
The Auk (American Ornithologists' Union).
The Condor (Cooper Ornithological Society).
Game Bird Breeders, Pheasant Fanciers and Aviculturists' Gazette.
Natural History (American Museum of Natural History).
The Wilson Bulletin (Wilson Ornithological Society).
Zoologica (New York Zoological Society).

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The sixteen Candidates for Election in the September–October, 1958, number of the Avicultural Magazine were duly elected members of the Society.

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M. D. England, Aros, Limpsfield, Oxted, Surrey.

Mrs. Avril Royston, Box 95, Sotik, Kenya.

CHANGES OF ADDRESS

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W. G. Brown, to 5 The Crescent, National Vegetable Research Station, Wellesbourne, Warwick.

Dr. D. H. Davies, to P.O. Box 736, Durban, Union of South Africa.

Mrs. A. R. Longhurst, to Fisheries Development and Research Unit, Freetown, Sierra Leone.

G. Reid, to Milton Street North, Nelson, New Zealand.

W. H. Rose, to Hill Cottage, Lubenham Hill, Market Harborough, Leics.

A. Rutgers, to Deventerweg 95, Zutphen, Holland.

J. M. Vaden, to 1510 Whispering Pines Drive, Houston 24, Texas, U.S.A.

Sidney Williams, to Millgarth, Nyewood Lane South, Bognor Regis, Sussex.

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The charge for Members' advertisements is TWO PENCE PER WORD. *Payment must accompany the advertisement, which must be sent on or before the 15th of the month to* A. A. PRESTWICH, 61 CHASE ROAD, OAKWOOD, N. 14. *All members of the Society are entitled to use this column, but the Council reserves the right to refuse any advertisements they consider unsuitable.*

WANTED

One hand-reared and pinioned Common Pintail drake.—T. OWEN, Upper Hilcot, Withington, Gloucestershire.

AVICULTURAL MAGAZINE. 1910–1923 and 1927.—R. G. KIRKHAM, " The Gables," Wynnsward Park, Clonskeagh, Co. Dublin, Eire.

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POST-MORTEM EXAMINATIONS

Attention is drawn to the following rules :—

1. All birds to be addressed to the Pathologist, Zoological Society of London, Regent's Park, London, N.W. 1.

2. A brief account of the illness should be sent and, in addition, it should be stated *what other birds are kept on the same premises.*

3. Enclose full name and address and telephone number, so that the owner may be informed urgently of what action to take in case of infectious disease, or contacted if further information is required.

4. Fees are based on the amount of work done. The basic fee for a single post-mortem examination is 10*s.*, but bacteriological and other laboratory tests are charged extra. Where more than one bird is sent at the same time the fee is not necessarily as much as 10*s.* per bird.

5. No body or skin of any bird will be returned under any circumstances whatever.

ARTHUR A. PRESTWICH,
Hon. Secretary.

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